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ABSTRACT

One distal, cognitive component of parenting is knowledge of infant development. This multifaceted construct includes knowledge of developmental norms, parental skills, and abstract principles of development. Generally, it has been assumed that knowledge of development affects childrearing practices; this assumption is documented in various bodies of literature and is evident in parent-education programs. Acquisition of parental knowledge may occur through exposure to sociocultural sources of information (such as the advice of experts, family, and friends) or through direct observation of infants and children. Research conducted with 256 mothers of 6-month-old infants indicates that books, the family doctor, and the parents' social network are the most important sources of information. Furthermore, such sociocultural influences appear to shape knowledge more powerfully than do direct, observational experiences with children. Research also suggests that more knowledgeable mothers rate their infants as having easier temperaments and that knowledge of development influences the way parents structure interactions between children and the social and physical environment. Presently, little is known about parents' experiences, knowledge, beliefs, and perceptions. Future studies of parental knowledge should develop better measurement techniques; seek a more complete description of origins and variations in knowledge, beliefs, and perceptions; and work toward a coherent typology of cognitive influences on parental behavior. (RH)

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The Nature of Parents' Experiences with and Knowledge About Infant Development

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Paper presented at the biennial meeting of the Society for Research in Child Development, Detroit, April 1983, as part of a symposium on The Cognitive Experience of Parents: The Study and Implications of Parental Knowledge, Perceptions, Reasoning and Beliefs.

In the last decade and a half, a substantial portion of the research on parenting has been devoted to proximal influences on socialization. That is, the primary focus has been on the nature of dyadic interactions. A resurgent interest in the cognitive aspects of parenting, however, suggests that research on socialization is returning to some of the issues and processes last explored in detail by Stolz (1967) and Baumrind (1971). The purpose of this paper is to discuss one of these distal cognitive components of parenting--knowledge of infant development. I will try to paint, in broad strokes, a picture of how knowledge of development is acquired and why it may be a crucial influence on parental behavior. While it may appear that I am merely stating the obvious--few of us, I suspect, would deny that what a parent knows about children influences the way they are reared--precious little empirical work actually has been conducted.

The first task is to define the object of inquiry. Knowledge of development is a collection of information that includes, but is not limited to, the following:

1. Norms and milestones of development, or developmental timetables that serve as implicit expectations for behavior. Stolz (1967) has termed this aspect of knowledge descriptive beliefs.
2. Skills parents may use during caregiving, such as changing diapers or health care, and strategies to control undesirable or promote desired behavior. Stolz (1967) applied the term instrumental beliefs to this type of knowledge.
3. Abstract principles of development such as the importance of early experiences and a recognition of individual differences in growth and behavior.

Knowledge of development thus is a multifaceted construct that may have a direct or mediated (through attributions) influence on parental behavior.

The assumption that knowledge of development affects child rearing practices is documented in various bodies of literature. Take, for instance, child abuse. It is a commonly-held belief that parents who mistreat their children have unrealisitc expectations for behavior. In the realm of physical caregiving, abusive parents seem to be unaware of how to bottle feed or toilet train the infant (Kempe, 1971). Abusive parents also are thought to expect too much, too soon as far as physical, social and cognitive development are concerned. The phenomenon of role reversal, where the baby is expected to be sensitive to and respond to the mother's moods and needs, is one example. Abusive parents also have been described as expecting the child to read, obey and be toilet trained at abnormally young ages (Jones & McNeely, 1980). Unfortunately, research on this particular topic is sparse and inconsistent in its findings.

In contrast to abusive parents who may expect too much, too soon, teenage mothers often are thought to expect too little, too late. Epstein (Note 1) points out that such expectations may contribute to non-stimulating child-rearing practices. If you think that babies will not benefit from being talked or read to, you are not likely to engage in experiences that might promote cognitive development (cf. Ninio, 1979). It is not surprising, then, that teenage mothers or mothers-to-be are frequent targets of intervention programs (Field, Widmayer, Stringer & Ignatoff, 1980; Badger, Burns & Rhoads, 1976).

We also presume that knowledge and parental behavior are linked when we conduct parent intervention or education programs. Think of all of the "how to" books, manuals, and courses on the skills of parenting, disciplinary practices, and stimulating cognitive development. Think of the discussion sessions, formal and informal, that concern management strategies and interpreting the child's

behavior. The fact that many of these programs, whether they attempt to change parental expectations (e.g. Field et al., 1980; Worobey & Belsky, 1982) or provide new strategies of stimulation and behavioral control (e.g. Andrews, Blumenthal, Johnson, et al., 1982; Patterson, 1980), effectively modify parent behavior speaks to the important role of parent knowledge as an influence on behavior.

Origins of Knowledge

Having exposed some of our assumptions about the importance of parental knowledge, I will turn to a consideration of its origins. To do so, I will draw a general distinction between vicarious, sociocultural sources of information and direct, observational experiences with infants and children.

A good example of vicarious exposure to information about infants is the advice of experts, typically disseminated through the media. Clarke-Stewart's (1978) intriguing study of popular primers for parents, for example, found that such resources have wide appeal, although the most avid consumers of books and pamphlets tended to be first-time and middle-class parents. Child-rearing advice also can be solicited from the family physician, who often is the single most important source of information for parents (Ninio, 1979; cf. MacPhee, in press). Interestingly, the information conveyed to parents frequently represents the expert's personal viewpoint and the prevailing zeitgeist, not a collection of empirically-verified facts (Casey, Sharp & Loda, 1979). Thirty years ago, for example, Martha Wolfenstein (1953) surveyed the government pamphlet Infant Care, published between 1914 and 1952, for trends in child care. She discovered that recommendations concerning issues such as toilet training, thumbsucking, and weaning were rooted in prevailing psychological theories and cultural attitudes. Thus, the knowledge that parents acquire from experts may reflect the attitudes of the culture as much as any so-called scientific truths (see also Bronfenbrenner, 1958).

Cultural transmission of developmental norms and child-rearing strategies by the social network of family and friends is another important source of information. Whiting (1974) notes that such folk wisdom is the principle source of knowledge in preliterate societies, although others (Goodnow, in press) have argued that most of what parents know and believe is "ready made", a "part of one's culture, presented to us as the way things 'are'" (p. 27). A growing body of cross-cultural and across-class research provides eloquent testimony to the influence of culture on parental knowledge. These studies typically examine the relationships between, on one hand, developmental timetables and valued behavior traits and, on the other hand, parent behavior or developmental outcomes. Among the cultures that have been compared are Japanese and U. S. mothers (Hess, Kashiwagi, Azuma, Price & Dickson, 1980); Australian and Lebanese-born mothers (Goodnow, Cashmore, Cotton & Knight, Note 2); and different ethnic (Frankel & Roer-Bornstein, 1982) or social class (Ninio, 1979) groups in Israel. In all cases, social class or ethnic differences in parental expectations were in accordance with the wider values and attitudes of the culture (see also Whiting, 1963).

The other dimension of experience mentioned earlier is direct, observational exposure to infants. How do variables such as parity and babysitting shape the parent's knowledge? The answer at this point, oddly enough, seems to be that direct experiences have very little influence on knowledge. My survey of the literature, verified by Goodnow's (in press), turned up few instances where the number of children had any effect on the mother's familiarity with developmental milestones or principles. Perhaps direct experience with children has its greatest effect with the first child, with little accumulated knowledge accruing from later offspring. Alternatively, Goodnow has argued that parents may vary in the amount of and responsibility for caregiving; that some parents

are more astute observers of their children and so would benefit more from the same experiences; or that most beliefs about development are relatively impervious to the effects of direct experience, changing only when the child violates their expectations as with a difficult or delayed child. Obviously, we need more research to solve this particular puzzle.

Data that I have been collecting over the past several years provide a more coherent picture of the types of experiences that may influence parental knowledge. In order to study parent's exposure to infants, I constructed a 17-item survey of experiences with infants. The Catalog of Previous Experience includes questions on babysitting as a youth; high school and college classes on infant care and development; the amount of time caring for one's own baby; and how much has been learned about infants from books, friends, relatives, professionals and the spouse. A companion questionnaire, the Knowledge of Infant Development Inventory, assesses the person's familiarity with infant norms and milestones; developmental principles; child-rearing strategies; and health care and safety practices (cf. MacPhee, Note 3).

Data were collected from 256 mothers of 6-month-olds. The sample was quite diverse with respect to social class (Duncan SEI: 0 to 96; $\underline{M}$ = 30.6), education (7 to 24 yrs.; $\underline{M}$ = 13.5), age (16 to 43 yrs.; $\underline{M}$ = 26) and parity (1 to 6 children; $\underline{M}$ = 1.67). All mothers completed and returned by mail the experience and knowledge questionnaires; 196 also filled out Carey's Infant Temperament Questionnaire. The results on their experiences with infants were as follows:

1. Books, friends with children, relatives and the family pediatrician were valued the most as information sources; the mass media and husbands were not, although middle class mothers found their spouses more helpful than did lower class mothers (see Table 1).

2. Lower-class mothers were more reliant on informal experiences within the context of the family, such as babysitting siblings when younger, talking to relatives, and watching and caring for infants in informal sitting arrangements. Middle-class mothers had more exposure to formal experiences requiring greater education: College classes in child development, professional work with infants, and reading books on infancy.
3. Given that the knowledge questionnaire measures, to some extent, familiarity with the predominant culture's belief system, it should not come as a surprise that mothers with more formal experiences had higher scores. Some of these resources, such as college classes in child development or books, would expose the individual to prototypic patterns of infant development, the very information being assessed on the knowledge questionnaire. The informal, vicarious experiences that were emphasized by lower SES mothers were uncorrelated or negatively correlated with scores on the knowledge inventory (see Table 2).
4. Finally, neither parity nor items measuring direct experience with infants were related to accurate knowledge.

In brief, my own research confirms much of what has been found in the past. Books, the family doctor, and the parent's social network are the most important sources of information, yet there also are cultural differences in patterns of experience that influence knowledge. Furthermore, sociocultural influences appear to shape knowledge more powerfully than do direct, observational experiences.

A final illustration of the relationship between experience and knowledge: As part of the standardization of the knowledge inventory, I collected data from a national sample of 99 pediatricians and 53 developmental psychologists. While there were no overall differences in knowledge scores, examination of individual

items brought to light a clear pattern. The pediatricians had much higher scores on the health care and safety items while the psychologists were more likely to be correct on the developmental principles and items related to early infant competencies (MacPhee, in press). Thus, the professionals' knowledge reflected their training.

Influences on Perceptions and Behavior

The final issue I will touch on concerns the relationship between knowledge and parental perceptions and behavior. Most of the evidence in this area either is circumstantial or is covered elsewhere in this symposium, so I will limit myself to two topics.

First, how might knowledge of development influence perceptions of the infant's behavior? One prediction I made is that variations in knowledge of development will influence parental ratings of infant temperament. In fact, more knowledgeable mothers, as measured on the knowledge questionnaire, do rate their infants as having easier temperaments. It is hard to say, however, whether this finding can be attributed to method covariance; to a process whereby the rater must compare the target infant's characteristics to a reference group (cf. Cairns & Green, 1979); or to the parent's self-assurance and caretaking skills that might be related to being more knowledgeable. Again, more research is needed to sort out the competing explanations.

Second, does knowledge of development influence the way the parent structures interactions with the social and inanimate environment? There are some compelling reasons to believe that it may. Some of the research on the home environment, for example, suggests that parents mediate children's experiences, and that this process is based on expectations for competence and perceptions of the child's readiness for experiences (e.g. Carew, 1980). A number of studies (Ninio, 1979; Frankel & Roer-Bornstein, 1982; Hess et al., 1980; Goodnow et al., Note 2) have

found parallels between estimated developmental milestones and when parents would introduce new experiences such as telling stories or reading to the child. A few studies, notably ones by Hunt and Paraskevopoulos (1980) and by Hess and his colleagues (1980), have found that accurate perceptions of the infant's abilities or earlier general expectations for development were related to higher levels of cognitive competence. This led Hunt and Paraskevopoulos to conclude that

> mothers who, for whatever reasons, hold false information about what their children can and cannot do, also fail to provide development-fostering experiences of as high a quality as mothers who hold accurate knowledge. (p. 290)

Even so, we know next to nothing about how knowledge influences interpretations of infant behavior and how these perceptions, in turn, may influence parental behavior.

In conclusion, I have tried to provide an overview of the nature of parents' knowledge of infant development: Why it seems to be an important topic for research on child rearing, and how it may arise and then influence parental perceptions and behavior. One point I have tried to make by example is how these distal influences on child-rearing--that is, experiences with and knowledge of infant development--may explain some aspects of parent behavior that micro-analytic studies cannot. I firmly believe that the cognitive components of parenting so cogently illuminated by Stolz in 1967 will help us to understand the parent as a strategist, as a problem-solver, and as an architect of the child's environment. It is therefore puzzling that we know so little about parents' experiences, knowledge, beliefs and perceptions. The theoretical climate of the last decade, emphasizing the structure and rules of social interchanges, certainly has played some part in this relative indifference. Accurately defining and measuring the constructs of interest, as with anything phenomenological, also present methodological barriers. Yarrow, Campbell and Burton's (1970) seminal

work on the pitfalls of retrospective interview data illustrate this quite clearly and, in fact, they may have written the epitaph for this area of inquiry. Let's hope they were a bit premature in burying the victim.

Looking to the future, I would press for advances on three fronts. First, the development of better measurement techniques that would combine interviews and questionnaires with observational data. This would permit more of a synthesis of what parents say they think or know or perceive, and how it is manifested in actual interactions with the child. Second, we need a more complete description of the origins and variations in knowledge, beliefs and perceptions. If we can comprehend the functioning of the average parent's mind, we may be on our way to helping parents who are abusive, non-stimulating or who have become engaged in deviant behavior patterns with their children. Finally, some effort must be made to link these different components into a coherent system or typology of cognitive influences on parental behavior. What I am suggesting is that the cognitive experience of parents is a topic worthy of as much attention as the child's cognitive development. Both have deep historical roots; both have profound educational implications; and both can inform us of basic psychological and developmental processes. Once we understand the cognitive influences on parenting, perhaps we can put forth a companion to Wilhelm Preyer's first child development textbook, only we'll call it The Mind of the Parent.

Reference Notes

1. Epstein, A. S. Pregnant teenagers' knowledge of infant development. Paper presented at the biennial meeting of the Society for Research on Child Development, San Francisco, March 1979.

2. Goodnow, J. J., Cashmore, J., Cotton, S., & Knight, R. Mothers' developmental timetables and associated ideas. Paper presented at the biennial meeting of the Society for Research in Child Development, Boston, April 1981.

3. MacPhee, D. Manual for the Knowledge of Infant Development Inventory. Unpublished manuscript, 1981

References

Andrews, S. R., Blumenthal, J. B., Johnson, D. L., et al. The skills of mothering: A study of parent child development centers. Monographs of the Society for Research in Child Development, 1982, 47 (6, Serial No. 198).

Badger, E., Burns, D., & Rhoads, B. Education for adolescent mothers in a hospital setting. American Journal of Public Health, 1976, 66, 469-472.

Baumrind, D. Current patterns of parental authority. Developmental Psychology Monographs, 1971, 4 (No. 4, Part 2).

Bronfenbrenner, U. Socialization and social class through time and space. In E. E. Maccoby, T. M. Newcomb, & E. L. Hartley (Eds.), Readings in social psychology. New York: Holt, 1958.

Cairns, R. B., & Green, J. A. How to assess personality and social patterns: Observations or ratings? In R. B. Cairns (Ed.), The analysis of social interactions: Methods, issues, and illustrations. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1979.

Carew, J. V. Experiences and the development of intelligence in young children at home and in day care. Monographs of the Society for Research in Child Development, 1980, 45 (Serial No. 183).

Casey, P., Sharp, M., & Loda, F. Child-health supervision for children under 2 years of age: A review of its content and effectiveness. Journal of Pediatrics, 1979, 95, 1-9.

Clarke-Stewart, K. A. Popular primers for parents. American Psychologist, 1978, 33, 359-369.

Field, T. M., Widmayer, S. M., Stringer, S., & Ignatoff, E. Teenage, lower-class black mothers and their preterm infants: An intervention and developmental follow-up. Child Development, 1980, 51, 426-436.

Frankel, D. G., & Roer-Bornstein, D. Traditional and modern contributions to changing infant-rearing ideologies in two ethnic groups. Monographs of the Society for Research in Child Development, 1982, 47 (4, Serial No. 196).

Goodnow, J. J. Change and variation in ideas about childhood and parenting. In I. Sigel (Ed.), Parents' beliefs about childhood and parenting. New York: Wiley, in press.

Hess, R. D., Kashiwagi, K., Azuma, H., Price, G. G., & Dickson, W. P. Maternal expectations for early mastery of developmental tasks in Japan and the United States. International Journal of Psychology, 1980, 15, 259-273.

Hunt, J. McV., & Paraskevopoulos, J. Children's psychological development as a function of the inaccuracy of their mother's knowledge of their abilities. Journal of Genetic Psychology 1980, 136, 285-298.

Jones, J. M., & McNeely, R. L. Mothers who neglect and those who do not: A comparative study. Social Casework, 1980, 61, 559-567.

Kempe, C. H. Pediatric implications of the Battered Baby Syndrome. Archives of Disease in Childhood, 1971, 46, 28-37.

MacPhee, D. The pediatrician as a source of information about child development. Journal of Pediatric Psychology, in press.

Ninio, A. The naive theory of the infant and other maternal attitudes in Israel. Child Development, 1979, 50, 976-980.

Patterson, G. R. Mothers: The unacknowledged victims. Monographs of the Society for Research in Child Development, 1980, 45 (5, Serial No. 186).

Stolz, L. M. Influences on parent behavior. Stanford: Stanford University Press, 1967.

Whiting, B. B. (Ed.) Six cultures: Studies in child rearing. New York: Wiley, 1963.

Whiting, B. B. Folk wisdom and child rearing. Merrill-Palmer Quarterly, 1974, 20, 9-19.

Wolfenstein, M. Trends in infant care. American Journal of Orthopsychiatry, 1953, 23, 120-130.

Worobey, J., & Belsky, J. Employing the Brazelton Scale to influence mothering: An experimental comparison of three strategies. Developmental Psychology, 1982, 18, 736-743.

Yarrow, M. R., Campbell, J. D., & Burton, R. V. Recollections of childhood: A study of the retrospective method. Monographs of the Society for Research in Child Development, 1970, 35 (5, Serial No. 138).

Table 1

Mothers' Scores on the Catalog of Previous Experience with Infants

COPE Factors and Items	Range	Mean	(SD)	SES difference	Factor loading
Factor 1					
12 - Learned from talking to relatives	1-4	2.88	(1.08)	L > M	.79
13 - Learned from talking to friends	1-4	2.96	(.91)	ns	.76
11 - Learned from observing babies	1-4	2.36	(1.11)	L > M	.68
14 - Learned from comparing babies to own	1-4	2.47	(1.00)	L > M	.60
Factor 2					
2 - Babysat other infants when younger	0-3	2.13	(.98)	ns	.71
1 - Babysat siblings when younger	0-3	1.20	(1.34)	L > M	.62
5 - Worked in a daycare center	0-4	.56	(1.24)	ns	.57
Factor 3					
6 - Professional work with infants	0-4	.56	(1.21)	L < M	.73
4 - College classes in child psych.	0-2	.43	(.78)	L < M	.66
(7 - Amount of time caring for own baby)				ns	(.44)
Factor 4					
3 - Parent education classes	0-2	.67	(.84)	L > M	.64
9 - Learned from mass media	1-4	1.81	(.91)	L > M	.63
10 - Learned from books & magazines	1-4	3.03	(.93)	L < M	.57
15 - Learned from health professionals	1-4	2.84	(.98)	L > M	.56
Factor 5					
16 - Learned from talking to spouse	0-4	1.88	(1.31)	L < M	.62
7 - Amount of time caring for own baby	1-5	4.13	(1.01)	ns	-.60
Factor 6					
8 - Babysits own & other infant	0-3	1.51	(1.11)	L > M	.77
17 - Overall confidence in knowledge	1-4	3.17	(.48)	ns	.69

Table 2

Correlations Between Experience and Knowledge for Mothers

COPE	KIDI	
	Attempted	Accuracy
1. Babysat siblings	-.11	-.14*
2. Babysat other infants	.06	.00
3. Parent education classes	-.05	-.11
4. College child psych. classes	.23**	.44**
5. Worked in a daycare center	.06	.12
6. Professional work	.20**	.23**
7. Time caring for own infant	.19**	.02
8. Babysits own and other infant	-.09	-.23**
9. Learned from mass media	-.05	-.20**
10. Learned from books	.13	.33**
11. Learned from observing babies	.11	-.21**
12. Learned from friends	.04	-.21**
13. Learned from relatives	.11	-.05
14. Learned from comparing babies	.00	-.04
15. Learned from pediatrician or RN	-.06	-.10
16. Learned from talking to spouse	.13	.34**
17. Confidence in knowledge	.28**	-.05

* $p < .025$

** $p < .002$